

WHAT IS CLAIMED IS:

1      *Suk*      1. A system for recovering a table comprising:  
2      *83*      a table recovery system; and  
3                a tablespace access system coupled to the table  
4      recovery system, wherein the tablespace access system is  
5      operable to restrict access to the tablespace to read-only  
6      access.

1      *DJK*      2. The system of claim 1 wherein the table recovery  
2      system further comprises a log record sorter system operable to  
3      sort log records from a log record file.

1      3. The system of claim 2 further comprising a data page  
2      updater system coupled to the log record sorter system operable  
3      to apply log record updates to a data page.

1      4. The system of claim 3 further comprising a data page  
2      scanner system coupled to the data page updater system, the  
3      data page scanner system operable to locate records associated  
4      with a table in a data page.

1       5. The system of claim 4 further comprising a page row  
2 extractor system coupled to the data page scanner system  
3 operable to extract page rows from a data page that has been  
4 located by the data page scanner system.

1       6. The system of claim 5 further comprising a table row  
2 inserter system coupled to the page row extractor system  
3 operable to write extracted page rows to the table.

1       7. A method for recovering a table that depends on a  
2 tablespace, said method comprising:

3             allowing at least one other table to have read-only  
4 access to the tablespace; and

5             using a backup copy of the tablespace to restore the  
6 table.

1       8. The method of claim 7, further comprising allowing  
2 said at least one other table to have update access to the  
3 tablespace when the table is restored.

1       9. The method of claim 7 wherein using the copy of the  
2 tablespace to restore the table comprises:

3           deleting all rows of the table;  
4           locking out access to indexes of the table;  
5           applying log records to the tablespace backup copy to  
6   update the tablespace backup copy;  
7           building new table data pages with the updated tablespace  
8   backup copy; and  
9           updating the table with the new table data pages.

10. The method of claim 9 wherein applying log records to  
the tablespace backup copy to update the tablespace backup copy  
further comprises:

reading the log records from a log record file to a log  
record workspace;  
sorting the log records; and  
applying the log records to the tablespace backup copy.

11. The method of claim 9 wherein building new table data  
pages with the updated tablespace backup copy comprises  
scanning the new table data pages for records that belong to  
the table being recovered.

1 *Subj* 12. A method of recovering a first table that depends on  
2 a tablespace, said method comprising:

3 receiving a backup copy of the tablespace;  
4 reading log records associated with the first table;  
5 applying the log records to the backup copy;  
6 building new table data pages from the backup copy;  
7 scanning the new table data pages for records of the first  
8 table; and  
9 updating the first table from the records.

10 13. The method of claim 12, further comprising:

11 limiting access of a second table to the tablespace to  
12 read-only before the first table is updated, wherein the second  
table depends on the tablespace.

13 14. The method of claim 13, further comprising:

14 providing update access to the second table after the  
15 first table is updated.

16 15. The method of claim 12, further comprising sorting  
17 the log records.

1        16. The method of claim 12 wherein the first table  
2        comprises rows and indices, the method further comprising:  
3                deleting the rows; and  
4                locking out the indices.

*Add A3*

*Add D*